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KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
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3746

NOTIFICATION DATE	DELIVERY MODE
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10/16/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
eOAPilot@kmob.com

Office Action Summary	Application No. 10/530,071	Applicant(s) GOTTSCHALK, ANDREAS	
	Examiner DEVON C. KRAMER	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 claims that the shaft is "without a core shaft". Then, claim 2, which depends on claim 1, states, "the shaft has a thin continuous core region". These two limitations contradict each other. It is not clear to the examiner whether applicant's shaft has a core shaft or does not have a core shaft. Further, it is not clear how something can be made from a single piece of homogenous material and has a core region. Please note that claims 1 and 2 have been rejected using a second 103 rejection, but it is not clear what applicant is claiming.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-9, 11-13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magnus 5,558,507 in view of Itabashi et al (5676192) or Nakamura et al (5778530) or Smith et al (6289764).

In re claims 1, 5-6, 11 and 16-18, Magnus teaches a pumping apparatus with a peristaltic drive device for pumping a medium through a hose (4) having at least one compressible portion, containing a one-piece shaft (figure 3) with integral cams (7) arranged so as to be offset with respect to one another and with attached lamellae (2), the shaft being configured to guide movement of the lamellae in both forward and backward directions (since the lamellae are attached to the asymmetrically designed shaft, as the shaft turns from 0 degrees to 180 degrees, the lamellae are guided in a forward direction, and as the shaft turns from 180 degrees towards 360/0 degrees, the lamellae are guided in a backward direction), wherein the cams are cam segments, the shaft is essentially without a core shaft (no solid shaft upon which the cam segments are mounted as shown in figure 5) and essentially without a continuous core region.

Magnus teaches the invention as claimed and as discussed above but fails to make an explicit mention that the ratio of the lamellae stroke to the lamellae height is 4:1 or the thin continuous region is 3 mm or less. It would have been obvious to one having ordinary skill in the art at the time the invention was made to reach such a ratio, since the claimed values are merely an optimum or workable range. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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Magnus fails to teach that the one-piece shaft comprises a single homogenous piece of material. Smith et al, Nakamura et al and Itabashi et al all teach integrally cast cam shafts made of a homogenous piece of material. It would have been obvious to one of ordinary skill in the art at the time of the invention to have made the shaft and cams of Magnus from one-piece as taught by Smith et al, Nakamura et al and Itabashi et al as a design choice and since it has been held that making in one-piece which has formerly been multiple pieces is a matter of obvious engineering choice. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965)

IN re claims 3-4 and 15, Magnus also teaches a counter pressure plate 6 for applying the hose, and for supporting the pressure exerted on the hose by the lamellae wherein the counter pressure plate is sprung within the housing of the apparatus by one ore more springs (column 4, lines 22-27), and also generating a sinusoidal pinching movement of the lamellae as clearly shown in figure 1.

In re claims 7-8 and 12-13, Magnus also suggests assembling the shaft structure in whatever structure is required for varying squeezing contours resulting in varying pumping rates and amounts (see column 4, lines 28-36). Also, Magnus fails to make explicit mention of that the cam segments are offset with respect to one another in such a way that only one cam segment is at a maximum distance from an imaginary line of the shaft and a uniform offset of the cam segments is provided. However, such a structure is a mere rearrangement of parts and it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70 and Magnus discusses rearranging the cams and structuring the eccentric shaft in a manner

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corresponding to a desired squeezing contour for the purpose of achieving a desired pumping rate and volume (see column 4, lines 28-36). In likewise fashion, the desire to pinch the hose so that a volume can be enclosed in leak-tight manner at the first and last cam segment and the remaining lamellae serve for the reduction in volume or wherein the first and last lamellae are switched as a valve and the remaining lamellae are set in such a way that in any position, at least a narrow gap remains between the walls of the hose acted upon by the lamellae results only in a mere rearrangements of parts. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70 and such a rearrangement is suggested by Magnus for the purpose of adjusting the desired squeezing contour and therefore, the desired pumping rate and volume (see column 4, lines 28-36).

In re claim 9, see Magnus col. 1 lines 59-62.

Claim 1-2 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magnus 5,558,507 in view of Itabashi et al (5676192) or Nakamura et al (5778530) or Smith et al (6289764) and further in view of Goi et al (DE 69201966).

In re claims 1-2 and 5-6, the limitations of claim 1 are met by the references above. (See rejection of claim 1 above).

Magnus, Itabashi, Nakamura and Smith all lack the teaching of a continuous core region. Goi et al teaches a continuous core region of a cam shaft. (Applicant specification page 1). It would have been obvious to one of ordinary skill in the art at the

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time of the invention was made to have provided the cam shaft of Magnus as modified by either Smith, Nakamura or Itabashi with a core shaft merely to provide a support to form the cams on and to increase the torsional strength of the shaft. Goi lacks the specific size of the core shaft. . It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the core shaft between 3mm to almost zero, since the claimed values are merely an optimum or workable range. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In re claims 7-8, Magnus also suggests assembling the shaft structure in whatever structure is required for varying squeezing contours resulting in varying pumping rates and amounts (see column 4, lines 28-36). Also, Magnus fails to make explicit mention of that the cam segments are offset with respect to one another in such a way that only one cam segment is at a maximum distance from an imaginary line of the shaft and a uniform offset of the cam segments is provided. However, such a structure is a mere rearrangement of parts and it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70 and Magnus discusses rearranging the cams and structuring the eccentric shaft in a manner corresponding to a desired squeezing contour for the purpose of achieving a desired pumping rate and volume (see column 4, lines 28-36). In likewise fashion, the desire to pinch the hose so that a volume can be enclosed in leak-tight manner at the first and last cam segment and the remaining lamellae serve for the reduction in volume or

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wherein the first and last lamellae are switched as a valve and the remaining lamellae are set in such a way that in any position, at least a narrow gap remains between the walls of the hose acted upon by the lamellae results only in a mere rearrangements of parts. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70 and such a rearrangement is suggested by Magnus for the purpose of adjusting the desired squeezing contour and therefore, the desired pumping rate and volume (see column 4, lines 28-36).

In re claim 9, see Magnus col. 1 lines 59-62.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Magnus 5,558,507 in view of Itabashi et al (5676192) or Nakamura et al (5778530) or Smith et al (6289764) and further in view of Romanelli et al. 4,755,168. Magnus teaches the invention as claimed and as discussed above but fails to teach the following claimed limitation as taught by Romanelli: a pumping of fluid in two directions for the purpose of performing both drainage and irrigation (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the structure of Magnus with a pumping of fluid in two directions for the purpose of performing both drainage and irrigation (Abstract).

Response to Arguments

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Applicant's arguments with respect to claims 1-9 and 11-18 have been considered but are moot in view of the new ground(s) of rejection.

Please note that the cam shaft that applicant is currently claiming reads on any cam shaft that is cast in on-piece.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to DEVON C. KRAMER at telephone number (571)272-7118.

Devon C Kramer
SPE
Art Unit 3746

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746